

Appendix D: Latitude and Longitude Calculations Worksheet

Latitude and Longitude Calculation Worksheet (7.5' quads) Using an Engineer's Scale (1/50)

Site Name CERCLIS #

AKA

Address

City State ZIP

Site Reference Point

USGS Quad Name Scale

Township Range Section 1/4 1/4 1/4

Map Datum ☐ 1927 ☒ 1983 (Check one) Meridian

Map coordinates at southeast corner of 7.5' quadrangle (attach photocopy)

Latitude ° ' "N Longitude ° ' "W

Map coordinates at southeast corner of 2.5' grid cell

Latitude ° ' "N Longitude ° ' "W

Calculations

LATITUDE(x)

A) Number of ruler graduations between 2.5' (150") grid lines (a)

B) Number of ruler graduations between south grid line and the site reference point (b)

C) Therefore, $a/150 = b/x$, where **x = Latitude in decimal seconds, north of the south grid line**

Expressed as minutes and seconds ($1' = 60''$) = ° ' "N

Add to grid cell latitude = ° ' "N + ° ' "N

Site latitude = 3 4 ° 0 8 ' 2 0 "N

LONGITUDE(y)

A) Number of ruler graduations between 2.5' (150") grid lines (a)

B) Number of ruler graduations between south grid line and the site reference point (b)

C) Therefore, $a/150 = b/x$, where **x = Longitude in decimal seconds, west of the east grid line**

Expressed as minutes and seconds ($1' = 60''$) = ° ' "W

Add to grid cell longitude = ° ' "N + ° ' "N

Site longitude = 1 1 9 ° 1 0 ' 5 5 "W